

CLAIMS

What is claimed is:

1. A medical instrument comprising:
 - a housing having a passage through which a catheter is received; and
 - a valve body mounted in the passage of the housing, the valve body having a two opposing planar faces and a peripheral edge separating the faces, the valve body further having a first slit that opens in one of the planar faces and a second slit that opens in the other planar face, each slit extending partly through the valve body and intersecting with the other slit within the valve body,
 - the valve body conforming to the outer wall of the catheter when the catheter penetrates through the intersection of the first and second slits to maintain a fluid tight seal between the valve body and the catheter,
 - the valve body having a first planar dimension and a second planar dimension that is less than the first planar dimension when the valve body is unstressed before being mounted in the passage.
2. The instrument of claim 1 wherein the first and second slits are oriented at an angle with respect to each other.
3. The instrument of claim 1 wherein the first and second slits are perpendicular to each other.

4. The instrument of claim 1 wherein the intersection of the first and second slits defines a path between the two opposing planar faces, the catheter being insertable through the path.
5. The instrument of claim 1 wherein the housing has a recess with a dimension across the recess that is less than the first planar dimension of the valve body.
6. The instrument of claim 5 wherein the valve body is compressed along the first planar dimension when the valve body is received within the recess.
7. The instrument of claim 5 wherein the recess is a circular recess with a circular cross section.
8. The instrument of claim 7 wherein the peripheral edge is non-circular when the valve body is unstressed before being received in the recess.
9. The instrument of claim 8 wherein the peripheral edge has an oval shape when the valve body is unstressed before being received in the recess.
10. A medical instrument comprising:
 - a housing having a passage through which a catheter is received; and
 - a valve body mounted in the passage of the housing, the valve body having a first planar face, a second planar face, and a peripheral edge separating the faces, the valve body further having a first slit defining a first slit plane extending

from the first planar face and partly through the valve body and a second slit defining a second slit plane extending from the second planar face and partly through the valve body, the first and second slit planes intersecting within the valve body,

the valve body conforming to the outer wall of the catheter when the catheter penetrates through the intersection between the first and second slit planes to maintain a fluid tight seal between the valve body and the catheter,

the valve body having a first planar dimension and a second planar dimension that is less than the first planar dimension when the valve body is unstressed before being mounted in the passage.

11. The instrument of claim 10 wherein the first and second slit planes are oriented at an angle with respect to each other.

12. The instrument of claim 10 wherein the first and second slit planes are perpendicular to each other.

13. The instrument of claim 10 wherein the intersection of the first and second slit planes defines a path between the first and second planar faces, the catheter being insertable through the path.

14. The instrument of claim 10 wherein the housing has a recess with a dimension across the recess that is less than the first dimension of the valve body.

15. The instrument of claim 14 wherein the valve body is compressed along the first dimension when the valve body is received within the recess.

16. The instrument of claim 14 wherein the recess is a circular recess with a circular cross section.

17. The instrument of claim 16 wherein the peripheral edge is non-circular when the valve body is unstressed before being received in the recess.

18. The instrument of claim 17 when the peripheral edge has an oval shape when the valve body is unstressed before being received in the recess.

19. A medical instrument comprising:

a housing having a passage through which a catheter is received; and
a valve body mounted in the passage of the housing, the valve body having a first planar face, a second planar face, and a peripheral edge separating the faces, the valve body further having a slit defining a slit plane extending from the first planar face and partly through the valve body and an opening extending from the second planar face and partly through the valve body, the slit plane and the opening intersecting within the valve body, the opening provided with an internal ring positioned within the valve body between the second planar face and the intersection between the slit plane and the opening,

the valve body conforming to the outer wall of the catheter when the catheter penetrates through the slit plane and the internal ring to maintain a fluid tight seal between the valve body and the catheter,

the valve body having a first planar dimension and a second planar dimension that is less than the first planar dimension when the valve body is unstressed before being mounted in the passage.

20. The instrument of claim 19 wherein the housing has a recess with a dimension across the recess that is less than the first dimension of the valve body.

21. The instrument of claim 20 wherein the valve body is compressed along the first dimension when the valve body is received within the recess.

22. The instrument of claim 20 wherein the recess is a circular recess with a circular cross section.

23. The instrument of claim 22 wherein the peripheral edge is non-circular when the valve body is unstressed before being received in the recess.

24. The instrument of claim 23 when the peripheral edge has an oval shape when the valve body is unstressed before being received in the recess.

25. The instrument of claim 19 wherein the valve body includes an external raised ring on the second surface, the external raised ring surrounding the opening.

26. The instrument of claim 25 wherein the opening at the second surface is larger than the opening near the internal ring.